UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,776	02/09/2006	Takeshi Iwatsu	284534US6PCT	4018

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
MINCEY, JERMAINE A

ART UNIT	PAPER NUMBER
2165	

NOTIFICATION DATE	DELIVERY MODE
10/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

	Application No.	Applicant(s)
	10/567,776	IWATSU ET AL.
Office Action Summary	Examiner	Art Unit	
	JERMAINE MINCEY	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 February 2006</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-11</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) _____ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>09 February 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☒ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>5/ 05/09/2006</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

This is a Non-Final Office Action Correspondence in response to U.S. Application No.

10/567776 filed on 02/09/2006. Claims 1-11 are pending.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been filed in parent PCT/JP2004/009891 filed

on 07/06/2004

Information Disclosure Statement

The listing of references in the Search Report is not considered to be an

information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2)

requires a legible copy of: (1) each foreign patent; (2) each publication or that portion

which caused it to be listed; (3) for each cited pending U.S. application, the application

specification including claims, and any drawing of the application, or that portion of the

application which caused it to be listed including any claims directed to that portion,

unless the cited pending U.S. application is stored in the Image File Wrapper (IFW)

system; and (4) all other information, or that portion which caused it to be listed. In

addition, each IDS must include a list of all patents, publications, applications, or other

information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)),

and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a

separate paper." Therefore, the references cited in the Search Report have not been

considered. Applicant is advised that the date of submission of any item of information

or any missing element(s) will be the date of submission for purposes of determining

compliance with the requirements based on the time of filing the IDS, including all

"statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show

every feature of the invention specified in the claims. Therefore, the last page of

drawings sheet 14 of 14 contains information about separate parts of the inventions.

This information should be attached to specific figures and not listed on a separate

sheet. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Specification

2.   Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

3.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The

abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4.   The abstract of the disclosure is objected to because it contains the language "invention". Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 the phrase "should" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. In light of the specification the Examiner believes the claim language stating, "method comprising the step of requesting step of making a request that an update-information providing apparatus should provide update ... " is performed always. So it is unclear as to why the language of "should" is used in the claim language because Examiner fails

to see when the method would not perform the function that is designed to do as set forth in the claim language and further explained in the specification. See MPEP § 2173.05(d).

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the phrase "should" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. In light of the specification the Examiner believes the claim language stating, "communication terminal characterized by comprising the step of requesting step of making a request that an update-information providing apparatus should provide update ... " is performed always. So it is unclear as to why the language of "should" is used in the claim language because Examiner fails to see when the communication terminal would not perform the function that is designed to do as set forth in the claim language and further explained in the specification. See MPEP § 2173.05(d).

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, the phrase "should" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

In light of the specification the Examiner believes the claim language stating, "a program to perform... the step of requesting step of making a request that an update-information providing apparatus should provide update ... " is performed always. So it is unclear as to why the language of "should" is used in the claim language because Examiner fails to see when the program would not perform the function that is designed to do as set forth in the claim language and further explained in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7, 9, 10 and 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 7 describes a communication terminal. The modules would be reasonably
understood by one of ordinary skill in the art to mean software, a software based
component implementation, or an abstract concept based on software. Examples of
components and concepts used in the claim are: requesting means, receiving means,
program-updating means, comparing means, data schema updating means and such
terms that are interpreted to mean abstract concepts and software implementations.
There are no definitive hardware or physical components associated with these
examples in the claims or in the specification.

The claim lacks the necessary physical articles or objects to constitute a machine
or a manufacture within the meaning of 35 USC 101. They are clearly not a series of
steps or acts to be a process nor are they a combination of chemical compounds to be
a composition of matter. As such, they fail to fall within a statutory category. They are,
at best functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se,* 33 F.3d at 1360, 31 USPQ2d at 1759. When <u>functional</u> descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry,* 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed Cir. 1994).

Merely claiming <u>non</u>functional descriptive material, i.e., abstract ideas stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr,* 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

In light of the specification [pg. 3] the Applicant describes the communication terminal as

"A communication terminal according to this invention is characterized by comprising: a requesting means for making a request that an update-information providing apparatus should provide update-information about a program to install and update information about a database schema; a receiving means of receiving the update-information about the program and the update-information about the database schema, both transmitted from the update-information providing apparatus in response to the request; a program-updating means for updating the program in accordance with the update-information about the program; a comparing means for comparing the database schema used by the program with the database schema mounted, in accordance with the update-information about the database schema, in terms of version; and database schema updating means for updating the database schema mounted, in accordance with the updated- information about the database schema, when the comparing mans determines that the database schema mounted needs to be updated."

Therefore, with respect to claim 7 the claim fails to place the invention squarely within one statutory class of invention. A communication terminal in itself does not have physical matter to support a claim as an article of machine, manufacture, or composition of matter.

Claim 9 describes an update-information providing apparatus. The modules would be reasonably understood by one of ordinary skill in the art to mean software, a software based component implementation, or an abstract concept based on software. Examples of components and concepts used in the claim are: storing means, transmitting means and such terms that are interpreted to mean abstract concepts and software implementations. There are no definitive hardware or physical components associated with these examples in the claims or in the specification.

The claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se,* 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable

medium, it becomes structurally and functionally interrelated to the medium and will be

statutory in most cases since use of technology permits the function of the descriptive

material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d

1031, 1035 (Fed Cir. 1994).

Merely claiming <u>non</u>functional descriptive material, i.e., abstract ideas stored on

a computer-readable medium, in a computer, or on an electromagnetic carrier signal,

does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that

the claims for an algorithm in *Benson* were unpatentable as abstract ideas because

"[t]he sole practical application of the algorithm was in connection with the programming

of a general purpose computer.").

In light of the specification [pg. 4] the Applicant describes the update-information

providing apparatus as

"An update-information providing apparatus according to this invention is characterized by

comprising: a storing means for storing update-information for a program to install in a communication

terminal and update-information for a database schema; and a transmitting means for transmitting the

update- information for the program and the update-information for the database schema from the

communication terminal when the communication terminal requests for the update-information for the

program and the update-information for the database schema."

<u>Therefore, with respect to claim 9 the claim fails to place the invention squarely</u>

<u>within one statutory class of invention. An update-information providing apparatus in</u>

itself does not have physical matter to support a claim as an article of machine, manufacture, or composition of matter.

Claim 10 describes a program. The modules would be reasonably understood by one of ordinary skill in the art to mean software, a software based component implementation, or an abstract concept based on software. Examples of components and concepts used in the claim are: requesting step, receiving step, program-updating step, comparing step, database schema updating step and such terms that are interpreted to mean abstract concepts and software implementations. There are no definitive hardware or physical components associated with these examples in the claims or in the specification.

The claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se,* 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive

material to be realized.   Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d

1031, 1035 (Fed Cir. 1994).

Merely claiming <u>non</u>functional descriptive material, i.e., abstract ideas stored on

a computer-readable medium, in a computer, or on an electromagnetic carrier signal,

does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that

the claims for an algorithm in *Benson* were unpatentable as abstract ideas because

"[t]he sole practical application of the algorithm was in connection with the programming

of a general purpose computer.").

In light of the specification [pg.5] the Applicant describes the program as

"A program for updating a database schema, according to this invention, is designed to cause an
information-processing apparatus to perform: a requesting step of making a request that an update-
information providing apparatus should provide update- information about a program to install and update
information about a database schema; a receiving step of receiving the update-information about the
program and the update-information about the database schema, both transmitted from the update-
information providing apparatus in response to the request; a program-updating step of updating the
program in accordance with the update-information about the program; a comparing step of comparing
the database schema used by the program with the database schema mounted, in accordance with the
update- information about the database schema, in terms of version; and a database schema updating
step of updating the database schema mounted, in accordance with the updated-information about the
database schema, when it is determined in the comparing step that the database schema mounted needs
to be updated."

<u>Therefore, with respect to claim 10 the claim fails to place the invention squarely</u>

<u>within one statutory class of invention.   A program in itself does not have physical</u>

<u>matter to support a claim as an article of machine, manufacture, or composition of</u>

<u>matter.</u>

Claim 11 describes a program. The modules would be reasonably understood by one of ordinary skill in the art to mean software, a software based component implementation, or an abstract concept based on software. Examples of components and concepts used in the claim are: storing step, transmitting step and such terms that are interpreted to mean abstract concepts and software implementations. There are no definitive hardware or physical components associated with these examples in the claims or in the specification.

The claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material *per se.*

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se,* 33 F.3d at 1360, 31 USPQ2d at 1759. When <u>functional</u> descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry,* 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed Cir. 1994).

Merely claiming <u>non</u>functional descriptive material, i.e., abstract ideas stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal,

does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that

the claims for an algorithm in *Benson* were unpatentable as abstract ideas because

"[t]he sole practical application of the algorithm was in connection with the programming

of a general purpose computer.").

In light of the specification [pg.5] the Applicant describes the program as

"A program for updating a database schema, according to this invention, is designed to cause an information-processing apparatus to perform: a requesting step of making a request that an update-information providing apparatus should provide update- information about a program to install and update information about a database schema; a receiving step of receiving the update-information about the program and the update-information about the database schema, both transmitted from the update-information providing apparatus in response to the request; a program-updating step of updating the program in accordance with the update-information about the program; a comparing step of comparing the database schema used by the program with the database schema mounted, in accordance with the update- information about the database schema, in terms of version; and a database schema updating step of updating the database schema mounted, in accordance with the updated-information about the database schema, when it is determined in the comparing step that the database schema mounted needs to be updated."

Therefore, with respect to claim 11 the claim fails to place the invention squarely

within one statutory class of invention. A program in itself does not have physical

matter to support a claim as an article of machine, manufacture, or composition of

matter.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.　　The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

　　1.　　Determining the scope and contents of the prior art.
　　2.　　Ascertaining the differences between the prior art and the claims at issue.
　　3.　　Resolving the level of ordinary skill in the pertinent art.
　　4.　　Considering objective evidence present in the application indicating
　　　　　obviousness or nonobviousness.

12.　　This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13.　　Claims 1 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable by Hayakawa et al. U.S. Publication No. 2003/0154187 (herein as 'Hayakawa').

　　As to claim 1 Hayakawa teaches a method of updating a database schema, characterized by comprising:

a requesting step of making a request that an update- information providing apparatus should provide update-information … and update information about a database schema (Par. 0010 Hayakawa discloses information about a database needs to be updated. Wherein "requesting" is seen as initiating, wherein "database schema" is seen as information about a database and wherein "update-information" is seen as update file).

Hayakawa does not explicitly teach …about a program to install… (Par. 0010 and 0011 Hayakawa discloses initiating a notification that application data needs to be updated. Wherein "program to install" is seen as application data).

It would have been obvious for a person of ordinary skill in the art at the time of the invention **was made** to combine Hayakawa's disclosure with the limitation of updating information about a program to install in order to keep the application data current.

One would have been motivated to make this combination in order to allow a user update application information. A user would want to update application data to keep the data current.

a receiving step of receiving the update-information about the program and the update-information about the database schema, both transmitted from the update-information providing apparatus in response to the request (Par. 0010 Hayakawa discloses receiving a notification that application data needs and information about a database needs to be updated);

a program-updating step of updating the program in accordance with the update-information about the program (Par. 0010 Hayakawa discloses updating the application data with the update file, wherein "update information" is seen as the update file);

a comparing step of comparing the database schema used by the program with the database schema mounted, in accordance with the update-information about the database schema, in terms of version (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138 Hayakawa discloses updating information by writing over the previous versions based upon the update file);

a database schema updating step of updating the database schema mounted, in accordance with the update-information about the database schema, when it is determined in the comparing step that the database schema mounted needs to be updated (Par. 0010 Hayakawa discloses updating the database with the update file).

As to claim 6 Hayakawa teaches each and every limitation of claim 1.

In addition Hayakawa teaches characterized in that in the database schema updating step, log information is recorded for each command issued to the database to update the database schema (Par. 0014 Hayakawa discloses a recording unit to log editing operation information, wherein "log information" is seen as the log that is produced from the recording unit).

As to claim 7 Hayakawa teaches a communication terminal characterized by comprising:

requesting means for making a request that an update- information providing apparatus should provide update-information ... and update information about a database schema (Par. 0010 Hayakawa discloses information about a database needs to be updated. Wherein "requesting" is seen as initiating, wherein "database schema" is seen as information about a database and wherein "update-information" is seen as update file).

Hayakawa does not explicitly teach ...about a program to install... (Par. 0010 and 0011 Hayakawa discloses initiating a notification that application data needs to be updated. Wherein "program to install" is seen as application data).

It would have been obvious for a person of ordinary skill in the art at the time of the invention **was made** to combine Hayakawa's disclosure with the limitation of updating information about a program to install.

One would have been motivated to make this combination in order to allow a user to update application information in order to keep the application data current.

receiving means of receiving the update-information about the program and the update-information about the database schema, both transmitted from the update-information providing apparatus in response to the request (Par. 0010 Hayakawa discloses receiving a notification that application data needs and information about a database needs to be updated);

program-updating means for updating the program in accordance with the update-information about the program (Par. 0010 Hayakawa discloses updating the application data with the update file);

comparing means for comparing the database schema used by the program with the database schema mounted, in accordance with the update-information about the database schema, in terms of version (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138 Hayakawa discloses updating information by writing over the previous versions based upon the update file);

database schema updating means for updating the database schema mounted, in accordance with the update-information about the database schema, when the comparing mans determines that the database schema mounted needs to be updated (Par. 0010 Hayakawa discloses updating the database with the update file).

As to claim 8 Hayakawa teaches a method of providing update-information, characterized by comprising:

a storing step of storing … in a communication terminal and update-information for a database schema (Par. 0004 and Par. 0011 Hayakawa discloses storing update information. Wherein "update-information for a program" and "update-information for a database" is seen as information).

Hayakawa does not explicitly teach … update-information for a program to install … (Par. 0010 and 0011 Hayakawa discloses initiating a notification that application data needs to be updated. Wherein "program to install" is seen as application data).

It would have been obvious for a person of ordinary skill in the art at the time of the invention **was made** to combine Hayakawa's disclosure with the limitation of updating information about a program to install in order to keep the application data current.

One would have been motivated to make this combination in order to allow a user to update application information.

a transmitting step of transmitting the update-information for the program and the update-information for the database schema from the communication terminal when the communication terminal requests for the update-information for the program and the update-information for the database schema   (Par. 0010 Hayakawa discloses transmitting the update information when an update is initiated);

wherein the program is updated in accordance with the update-information for the program (Par. 0010 Hayakawa discloses updating the application data with the update file);

the database schema used by the program and the database schema mounted are compared in terms of version in accordance with the update-information for the database schema (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138

Hayakawa discloses updating information by writing over the previous versions based

upon the update file);

and the database schema mounted is updated in accordance with the update-

information about the database schema, when it is determined from the result of

comparison that the database schema mounted needs to be updated (Par. 0010

Hayakawa discloses updating the database with the update file).

As to claim 9 Hayakawa teaches an update-information providing apparatus

characterized by comprising:

storing means for storing ... in a communication terminal and update-information

for a database schema (Par. 0004 and Par. 0011 Hayakawa discloses storing update

information. Wherein "update-information for a program" and "update-information for a

database" is seen as information).

Hayakawa does not explicitly teach ...update-information for a program to

install... (Par. 0010 and 0011 Hayakawa discloses initiating a notification that

application data needs to be updated. Wherein "program to install" is seen as

application data).

It would have been obvious for a person of ordinary skill in the art at the time of

the invention **was made** to combine Hayakawa's disclosure with the limitation of

updating information about a program to install.

One would have been motivated to make this combination in order to allow a

user to update application information in order to keep the application data current.

transmitting means for transmitting the update-information for the program and the update-information for the database schema from the communication terminal when the communication terminal requests for the update-information for the program and the update-information for the database schema (Par. 0010 Hayakawa discloses transmitting the update information when an update is initiated);

wherein the program is updated in accordance with the update-information for the program (Par. 0010 Hayakawa discloses updating the application data with the update file);

the database schema used by the program and the database schema mounted are compared in terms of version in accordance with the update-information for the database schema (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138 Hayakawa discloses updating information by writing over the previous versions based upon the update file);

the database schema mounted is updated in accordance with the update-information about the database schema, when it is determined from the result of comparison that the database schema mounted needs to be updated (Par. 0010 Hayakawa discloses updating the database with the update file).

As to claim 10 Hayakawa teaches a program for updating a database schema, designed to cause an information-processing apparatus to perform:

a requesting step of making a request that an update- information providing apparatus should provide update-information … and update information about a database schema (Par. 0010 Hayakawa discloses information about a database needs to be updated. Wherein "requesting" is seen as initiating, wherein "database schema" is seen as information about a database and wherein "update-information" is seen as update file).

Hayakawa does not explicitly teach …about a program to install… (Par. 0010 and 0011 Hayakawa discloses initiating a notification that application data needs to be updated. Wherein "program to install" is seen as application data).

It would have been obvious for a person of ordinary skill in the art at the time of the invention **was made** to combine Hayakawa's disclosure with the limitation of updating information about a program to install.

One would have been motivated to make this combination in order to allow a user to update application information.

a receiving step of receiving the update-information about the program and the update-information about the database schema, both transmitted from the update-information providing apparatus in response to the request (Par. 0010 Hayakawa discloses receiving a notification that application data needs and information about a database needs to be updated);

a program-updating step of updating the program in accordance with the update-information about the program (Par. 0010 Hayakawa discloses updating the application data with the update file);

a comparing step of comparing the database schema used by the program with the database schema mounted, in accordance with the update-information about the database schema, in terms of version (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138 Hayakawa discloses updating information by writing over the previous versions based upon the update file);

a database schema updating step of updating the database schema mounted, in accordance with the updated-information about the database schema, when it is determined in the comparing step that the database schema mounted needs to be updated (Par. 0010 Hayakawa discloses updating the database with the update file).

As to claim 11 Hayakawa teaches a program for providing update-information, designed to cause an information-processing apparatus to perform:

a storing step of storing … in a communication terminal and update-information for a database schema (Par. 0004 and Par. 0011 Hayakawa discloses storing update information. Wherein "update-information for a program" and "update-information for a database" is seen as information).

Hayakawa does not explicitly teach … update-information for a program to install… (Par. 0010 and 0011 Hayakawa discloses initiating a notification that application data needs to be updated. Wherein "program to install" is seen as application data).

It would have been obvious for a person of ordinary skill in the art at the time of the invention **was made** to combine Hayakawa's disclosure with the limitation of updating information about a program to install.

One would have been motivated to make this combination in order to allow a user to update application information in order to keep the application data current.

a transmitting step of transmitting the update-information for the program and the update-information for the database schema from the communication terminal when the communication terminal requests for the update-information for the program and the update-information for the database schema (Par. 0010 Hayakawa discloses transmitting the update information when an update is initiated);

said program causing the communication terminal to update the program in accordance with the update-information for the program (Par. 0010 Hayakawa discloses updating the application data with the update file);

to compare the database schema used by the program and the database schema mounted in terms of version in accordance with the update-information for the database schema (Par. 0011 Hayakawa discloses comparing the identification numbers of the application data with the database based upon the update file. Par. 0138 Hayakawa discloses updating information by writing over the previous versions based upon the update file);

update the database schema mounted in accordance with the updated-information about the database schema, when it is determined from the result of

comparison that the database schema mounted needs to be updated (Par. 0010

Hayakawa discloses updating the database with the update file).

14.   Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hayakawa as applied to claim 1 above, and further in view of Anderson U.S. Patent No.

6,298,401 (herein as 'Anderson').

As to claim 2 Hayakawa teaches each and every limitation of claim 1.

Hayakawa does not teach but Anderson teaches characterized in that in the

database schema updating step, accesses to the database from the program are

inhibited while the database schema is being updated (Col. 16 Line 6-9 Anderson

discloses prohibiting access while the database is being updated).

It would have been obvious for a person of ordinary skill in the art at the time of

the invention to combine Anderson's disclosure with the limitation of prohibiting access

while the database is updating.

One would have been motivated to make this combination in order to prevent a

user from accessing the database during an update operation that way to keep the data

coherent, e.g., which would prevent erroneous data access.

As to claim 3 Hayakawa in combination with Anderson teaches each and every

limitation of claim 2.

In addition Anderson teaches characterized in that in the database schema updating step, accesses to the database from any application in the program is inhibited while the database schema is being updated (Col. 16 Line 6-9 Anderson discloses prohibiting access while the data is being updated).

15.   Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa as applied to claim 1 above, and further in view of Gautam et al U.S. Patent No. 5,956,704 (herein as 'Gautam').

As to claim 4 Hayakawa teaches each and every limitation of claim 1.

Hayakawa does not teach but Gautam teaches characterized in that in the database schema updating step, the database schema is inhibited from being updated while the program is accessing the database (Col. 4 Line 60-65 Gautam discloses locking the database from any write commands while being accessed).

It would have been obvious for a person of ordinary skill in the art at the time of the invention to combine Gautam's disclosure with the limitation of prohibiting access while the database is updating.

One would have been motivated to make this combination in order to prevent an update while the database is being accessed. One would be motivated to prevent updating a database while it is being accessed so that when the system does do an

update the information is current and not out dated because the database was accessed while the database was being updated.

As to claim 5 Hayakawa in combination with Gautam teaches each and every limitation of claim 4.

In addition Gautam teaches characterized in that in the database schema updating step, the database schema is inhibited from being updated while any application in the program is accessing the database (Col. 4 Line 60-65 Gautam discloses locking the database from any write commands while being accessed. Wherein "inhibited" is seen as locking the data from any write commands).

16.   **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERMAINE MINCEY whose telephone number is (571)270-5010. The examiner can normally be reached on Monday through Thursday 8:30-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 1-571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/klu/

Jermaine Mincey

/Jermaine Mincey/
Examiner, Art Unit 2165

/Christian P. Chace/
Supervisory Patent Examiner, Art Unit 2165